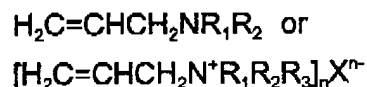


**AMENDMENTS TO THE SPECIFICATION:**

In the Abstract, please substitute the following amended paragraph for the pending paragraph beginning on page 12, line 1:

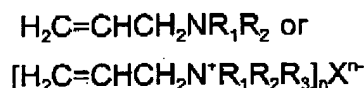
An aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit. The bath includes nickel ions and an additive having the general formula:



wherein  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $\text{X}^{n-}$  is an n-valent inorganic or organic anion.

Please substitute the following amended paragraph for the pending paragraph beginning on page 3, line 7:

To achieve the foregoing objects, and in accordance with the purpose of the invention, as embodied and broadly described herein, the present invention provides, in a first aspect, a brightener for use in the electrodeposition of a nickel or nickel-alloy on a substrate, in which the brightener comprises an additive having the general formula:



wherein  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $\text{X}^{n-}$  is an n-valent inorganic or organic anion.

Please substitute the following amended paragraph for the pending paragraph beginning on page 3, line 16:

The present invention provides, in a second aspect, a process for the electrodeposition of a nickel or nickel-alloy coating on a metal substrate comprising immersing the metal substrate in a bath comprising nickel ions and an additive having the general formula  $\text{H}_2\text{C}=\text{CHCH}_2\text{NR}_1\text{R}_2$  or  $[\text{H}_2\text{C}=\text{CHCH}_2\text{N}^+\text{R}_1\text{R}_2\text{R}_3]_n\text{X}^{n-}$  wherein  $\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$

are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $X^{n-}$  is an n-valent inorganic or organic anion.

Please substitute the following amended paragraph for the pending paragraph beginning on page 3, line 23:

In another aspect, the present invention provides an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising nickel ions; and an additive having the general formula  $H_2C=CHCH_2NR_1R_2$  or  $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$  wherein  $R_1$ ,  $R_2$  and  $R_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $X^{n-}$  is an n-valent inorganic or organic anion.

Please substitute the following amended paragraph for the pending paragraph beginning on page 3, line 29 and continuing on page 4:

In a further aspect, the invention provides an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising nickel ions; at least one Class I brightener; and an additive having the general formula  $H_2C=CHCH_2NR_1R_2$  or  $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$  wherein  $R_1$ ,  $R_2$  and  $R_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $X^{n-}$  is an n-valent inorganic or organic anion.

Please substitute the following amended paragraph for the pending paragraph beginning on page 4, line 3:

The present invention also provides, in a further aspect, an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising nickel ions; at least one Class II brightener; and an additive having the general formula  $H_2C=CHCH_2NR_1R_2$  or  $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$  wherein  $R_1$ ,  $R_2$  and  $R_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $X^{n-}$  is an n-valent inorganic or organic anion.

Please substitute the following amended paragraph for the pending paragraph beginning on page 4, line 10:

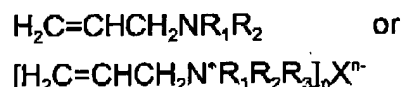
In another aspect, the present invention provides an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising nickel ions; at least one Class I brightener; at least one Class II brightener; and an additive having the general formula  $H_2C=CHCH_2NR_1R_2$  or  $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$  wherein  $R_1$ ,  $R_2$  and  $R_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $X^{n-}$  is an n-valent inorganic or organic anion.

Please substitute the following amended paragraph for the pending paragraph beginning on page 4, line 17:

In yet another aspect, the present invention provides an aqueous acidic plating bath for the electrodeposition of a nickel or nickel alloy deposit on a substrate comprising nickel ions; alloying metal ions; at least one Class I brightener; at least one Class II brightener; and an additive having the general formula  $H_2C=CHCH_2NR_1R_2$  or  $[H_2C=CHCH_2N^+R_1R_2R_3]_nX^{n-}$  wherein  $R_1$ ,  $R_2$  and  $R_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $X^{n-}$  is an n-valent inorganic or organic anion.

Please substitute the following amended paragraph for the pending paragraph beginning on page 4, line 28 and continuing on page 5:

In accordance with the present invention, N-allyl substituted amines and their salts are employed as the main brightener and leveling additives in a nickel plating bath. The additives of the present invention are characterized by the following general formula:



wherein  $R_1$ ,  $R_2$  and  $R_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $X^{n-}$  is an n-

valent inorganic or organic anion. Suitable n-valent anions include, but are not limited to chloride, bromide, fluoride, sulfate, acetate, and tetrafluoroborate. The N-allyl substituted amine or their salts are preferably present in a nickel plating bath at a concentration of from about 5 mg/l to about 160 mg/l; more preferably at a concentration of from about 5 mg/l to about 100 mg/l; and most preferably from about 6 mg/l to about 80 mg/l.

Please substitute the following amended paragraph for the pending paragraph beginning on page 6, line 7:

The present invention also includes a process for producing a nickel or nickel-alloy deposit on a substrate. A substrate is immersed in a nickel or nickel-alloy electrolyte solution that contains nickel ions and/or alloying metal ions, and also contains an additive having the general formula  $H_2C=CHCH_2NR_1R_2$  or  $[H_2C=CHCH_2N^+R_1R_2R_3]X^{n-}$  wherein  $R_1$ ,  $R_2$  and  $R_3$  are selected from the functional groups consisting [[or]] of hydrogen, methyl, ethyl, propyl, allyl, propyn, propanediol and combinations thereof; and  $X^{n-}$  is an n-valent inorganic or organic anion. A current, sufficient to apply the desired amount of nickel or nickel-alloy, is applied to an anode that has been placed in the bath. Typically, nickel anodes are used as the anodes for the electrodeposition of nickel. The substrate to which the nickel or nickel-alloy deposit is applied acts as the cathode.